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CRIMINAL PROFILERS – HUMAN LIE DETECTORS

ABSTRACT: For a long time, people have demonstrated a natural tendency to analyze and assess fellow humans as well as animals, objects, and similar entities, even in everyday scenarios. However, it is a little bit strange that criminal profiling became integrated into standard investigative practices within law enforcement not before the 1980s. Criminal profilers primarily fulfill their role by working on the resolution of intricate crimes where the identity of the perpetrator is unknown. On the other hand, they also have a suppressive impact, and to a lesser degree, a preventive influence, which is enhanced by considering the risk factors associated with the emergence of criminal behavior, as well as the study of criminal phenomenology. The techniques employed in criminal profiling aid in the timely identification of symptoms that indicate a combination of biological, social, and environmental factors, including learning and situational elements. As we navigate through the factors contributing to the development of criminal behavior, as well as the suppression and prevention of crime through the efforts of criminal profilers, we reach the significance of their role in detecting deception and the essentiality of human presence and intervention in diverse formal conversations,

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encompassing law enforcement, social work, and education. The aim of this paper is to systematically shed light on the factors contributing to the development of criminal behavior, to investigate the phenomenology of crime and to highlight the role of criminal profilers in the prevention and suppression of crime, as well as to analyze their role in the process of lie detection, while giving recommendations for the incorporation of profiling techniques into the body of knowledge and skills of teachers, pedagogues, psychologists, social workers, and others. The methods used in this study include a quantitative and qualitative analysis, using primary and secondary sources, as well as a comparative analysis.

Keywords: *criminal profiling, development of criminal behavior, risk factors, lie detection, crime prevention.*

1. Introduction

Although criminal profiling emerged as a formal practice in criminal investigations relatively recently, its underlying elements and processes have been unconsciously utilized by people since ancient times in various aspects of everyday life. Individuals tend to profile others during initial encounters, even before establishing potential emotional relationships, when assessing prospective employees during the hiring process, and even in casual encounters on the street, in supermarkets, shopping centers, or while navigating through traffic. Criminal profiling, therefore, represents a logical extension, systematization, and application of these innate processes. By employing criminal profiling in the detection and prevention of criminal acts, it becomes crucial to establish the connection between criminal profiling and the understanding of the origins of criminal behavior and the development of risk factors.Criminal behavior is a complex phenomenon that has been researched extensively in the fields of psychology and criminology. While the origins of criminal behavior are not fully understood, many theories have been proposed to explain its development. Developmental risk factor theories play an important role in criminal behavior research, and we can sublimate the results of various research and consequential theories into several groups – biological risk factors, social risk factors, and learning risk factors and situational factors.In addition to studies of the origin of criminal behavior, it is important to mention studies of criminal phenomenology, which representsthe study of the subjective experiences of individuals who engage in criminal behavior. Some researchers suggest that criminal behavior is a response to

feelings of powerlessness, social exclusion, and frustration (Braithwaite, 1989). Others suggest that criminal behavior is a way for individuals to assert their independence and autonomy (Katz, 1988). Still, others suggest that criminal behavior is a product of an individual's social and cultural context (Matza, 1964). Based on the comprehensive information presented thus far, it is evident that the origin of criminal behavior is an exceedingly intricate phenomenon encompassing diverse manifestations. The goal of this paper is to systematically elucidate the factors contributing to the development of criminal behavior, explore criminal phenomenology, and highlight the role of criminal profilers in prevention and intervention. The ultimate aim is to reduce crime rates and foster a culture of public safety. Additionally, the techniques employed by criminal profilers can be adapted for application in other domains of human activity, such as education or pedagogy. The research methods employed in this study encompass both quantitative and qualitative analysis, drawing on primary and secondary sources, as well as comparative analysis.

2. Origins of criminal behavior

Criminal behavior is a complex phenomenon influenced by various factors, including biological, social, situational, and learning factors. While the social and environmental factors have been extensively studied, the role of biological factors in criminal behavior is still not fully understood. The main biological factors associated with criminal behavior are genetics, brain structure and function, hormones, and neurotransmitters. Genetics is one of the most studied biological factors of criminal behavior. Research has shown that there is a heritable component to criminal behavior, meaning that it can be passed down from generation to generation. Twin studies have found that identical twins, who share 100% of their genes, are more likely to have similar criminal behavior than fraternal twins, who share only 50% of their genes (Raine, 2014). Moreover, specific genes, such as MAOA and CDH13, have been linked to criminal behavior (Brunner et al., 1993; Tiihonen et al., 2015). However, it is important to discern that genetics is not the sole determinant of criminal behavior, as environmental factors can also play a significant role. Another biological factor that has been linked to criminal behavior is brain structure and function. Neuroimaging studies have shown that individuals with criminal behavior have different brain structures and activity patterns compared to non-criminal individuals (Raine, 2014). Concretely, the prefrontal cortex, which controls the decision-making and impulse control, is

often found to be impaired in individuals with criminal behavior (Raine et al., 2000). Furthermore, abnormalities in the amygdala, which is responsible for emotional processing, have also been linked to criminal behavior (Kiehl et al., 2001). Hormones, such as testosterone, have also been studied in relation to criminal behavior. Research has found that individuals with high levels of testosterone are more predisposed to engage in criminal behavior, particularly violent crimes (Dabbs & Morris, 1990). This may be because testosterone is associated with increased aggression and dominance, which can lead to criminal behavior. Finally, neurotransmitters, such as dopamine and serotonin, have been implicated in criminal behavior. Dopamine is associated with reward and motivation, and research has shown that individuals with criminal behavior have reduced dopamine function (Ettinger et al., 2013). Serotonin, on the other hand, is associated with impulse control and mood regulation, and low levels of serotonin have been linked to increased aggression and impulsivity (Linnoila & Virkkunen, 1992).However, none of these elements, nor the biological factors in general, work independently but are influenced by other groups of factors. The next group of factors are social factors. Social factors have a very important role in the development of criminal behavior. While there are many social factors influencing criminal behavior, we will focus on family, poverty, education, peer influence, and media. Family is a very important social factor in the context of the development of criminal behavior. Research has shown that individuals who grow up in families with high levels of conflict, violence, and neglect are more likely to engage in criminal behavior (Farrington et al., 1990). Moreover, the absence of a positive parental figure or a lack of parental monitoring can increase the likelihood of criminal behavior (Farrington et al., 1990).In other words, a healthy family generally plays a crucial role in upbringing and development of healthy individuals who will be less prone to criminal activities, but, as is the case with all the other factors, we cannot neglect influence of other factors. Poverty is one of the most studied social factors of criminal behavior. Research has consistently shown that individuals from low-income families are more likely to engage in criminal behavior than those from higher-income families (Sampson & Laub, 1995). Poverty can lead to a lack of opportunities, limited access to resources, and exposure to high levels of stress, all of which can increase the likelihood of criminal behavior (Wilson & Kelling, 1982).Education is another important social factor. Individuals with lower levels of education are more susceptible to engage in criminal behavior than those with higher levels of education (Sampson & Laub, 1995). Education provides individuals with skills and knowledge that can lead to

better job opportunities and higher income, which in turn can reduce the likelihood of criminal behavior (Lipsey & Derzon, 1998).Peer influence is also an important social factor associated with criminal behavior. Research has shown that individuals who spend time with delinquent peers are more probable to engage in criminal behavior (Thornberry & Krohn, 2000). This may be because delinquent peers can provide individuals with opportunities, support, and encouragement to engage in criminal behavior.Other factors that have an effect on development of criminal behaviors are situational factors and learning factors. Situational factors, such as poverty, family dysfunction, and exposure to crime, can also contribute to the development of criminal behavior (Wikström et al., 2013). For example, children who grow up in poverty are prone to engage in criminal behavior as adults (Sampson & Laub, 1997). Similarly, individuals exposed to crime in their communities may be more likely to engage in criminal behavior themselves (Wikström et al., 2013).Learning factors, such as socialization and reinforcement, also influence the development of criminal behavior. Socialization is the process of adopting social norms and values, which can influence an individual's behavior (Akers & Sellers, 2013). Reinforcement is the process of rewarding or punishing behavior, which can shape an individual's behavior over time (Bandura, 1977). For example, individuals exposed to violence at a young age may learn that violence is an acceptable way to solve problems. We should also stress the enormous influence of media on the development of criminal behavior in individuals. The media with mass reach, be it legacy media or new media, influence the daily lives of people with their content. Social media have a particularly troublesome influence on the development of criminal behavior, as it projects several aforementioned factors to a very large populace, and through them, other factors social and learning factors can be applied, from peer influence to socialization, and while legacy media can be regulated to some degree, social media is very difficult to regulate as it is based on user-generated content.

As we can see, the development of criminal behavior is a very complex phenomenon as there is a myriad of factors that can influence individuals to exhibit criminal behavior. On the other hand, understanding that multitude of factors can be helpful in the identification of early signs of criminal behavior before it is fully exhibited, so a certain degree of preventative actions can be undertaken in order to correct the course those individuals are taking and help them to socialize and become valuable members of society.

3. Importance of criminal profiling in the prevention and suppression of criminal behavior

The topic of criminal profiling in investigations is a complex issue that poses challenges for definition due to its inherent ambiguities and underestimated nature. Profilers are experts who construct psychological profiles of both perpetrators and victims, aiming to capture their real-life characteristics as closely as possible. Although profiling begins on a solid scientific basis, intuition and imagination gradually come to play a significant role in the process. Seasoned criminal investigators constantly consider the perpetrator of a crime and, as they gather information, manipulate it in various ways in their minds. They then use this information to imagine the person, developing a clearer and more detailed image of the individual and making reasonable predictions about their potential reactions in specific situations (Bjelajac, Merdović & Filipović, 2023).Criminal profiling has become an integral aspect of crime-solving procedures, and it can also serve as a preventative measure in and of itself (Bjelajac & Filipović, 2023). However, experts have conflicting opinions on how effective the profiling can be in prevention of crime. Some proponents of criminal profiling argue that profiling can help prevent criminal behavior by providing law enforcement with insights into the psychological makeup of offenders, which can help them anticipate and prevent future crimes. For example, a profiler might identify certain behaviors or patterns that are indicative of a specific type of offender, such as a serial killer or a sexual predator, which can help police focus their investigations and increase the likelihood of capturing the offender before they can commit additional crimes (Canter & Alison, 1999). Critics of criminal profiling, however, argue that the technique is often based on subjective assessments and stereotypes, and that it is of limited value in preventing criminal behavior. Some studies have even suggested that profiling can sometimes be counterproductive, as it can lead investigators to focus too narrowly on certain suspects and overlook other potential leads (Snook et al., 2007).Overall, while criminal profiling can be a useful tool in some cases, it is not considered to be a reliable or effective method for preventing criminal behavior on its own. Rather, preventing criminal behavior requires a multifaceted approach that includes addressing the underlying social, environmental, and psychological factors that contribute to criminal behavior, as well as implementing effective law enforcement strategies and policies (Farrington & Welsh, 2006).Education plays a crucial role in equipping investigators with the necessary psychological, criminological,

criminalistic, sociological, and other skills required to analyze information and clues in cases of serious and complex crimes. Due to the limited availability of evidence and information in such cases, investigators heavily rely on their intellectual capabilities within the framework provided by their acquired knowledge and expertise. This enables them to navigate through the intricacies of the investigation process and make informed judgments and deductions (Bjelajac & Filipović, 2022a). However, knowledge of profiling techniques can be central to the early identification of potential abusers and criminals, so the social workers, pedagogues, teachers, children psychologists, and others involved in the process of education and socialization of children and youth shall at least have basic knowledge so they would be able to react much quicker and potentially prevent such early cases ever to become serious cases of development of criminal behavior, as parents, social workers, and authorities responsible for ensuring public safety often lack specific tools or frameworks to effectively recognize individuals who may become future perpetrators of criminal offenses (see more: Bjelajac & Filipović, 2022b).On the other hand, criminal profiling has an important role in the suppression of criminal behavior. Profiling can play a role in the suppression of crime by providing law enforcement with insights into the psychological makeup of offenders, which can help them anticipate and prevent future crimes. The primary function of criminal profiling is to detect and apprehend offenders, and there are numerous instances of very difficult cases solved only when criminal profilers became involved (see more: Douglas, Burgess & Ressler, 1995). In addition to helping law enforcement agencies solve crimes, profiling can also play a role in the suppression of crime by identifying patterns of criminal behavior and helping to develop effective prevention strategies. By analyzing crime scene evidence and identifying commonalities among offenders, profilers can provide law enforcement agencies with information on potential future offenders, as well as the types of crimes that are most likely to be committed in certain areas (Canter & Alison, 1999).The knowledge that they will be caught and captured is generally an excellent preventative measure for would-be criminals never to engage in criminal acts.

4. Criminal profilers – human lie detectors

The ability of discerning the truth from lies has always been a key element in criminal investigations, whether interrogating suspects or talking to potential witnesses. Generally, the human pursuit of truth and the desire to be able to detect lies has been a fascination as well as the topic of interest

for thinkers and researchers in many areas, from philosophy and psychology to crime studies. Unable to precisely and consistently discern lies from the truth, humankind used various objects and later machines to help them in this endeavor, but none of such objects or inventions proved accurate enough. Some ancient tribes used very fragile eggs of large birds and put them into the hands of potential perpetrators, and if the egg cracked, that was interpreted as a sign that the person lied since their hands were shaky and unstable. Naturally, such an interpretation is very inaccurate, as someone's hands can be shaky for a myriad of reasons, including lying, but without any context, jumping to such conclusions meant that many innocent people were punished while the guilty ones walked free. It is similar to the current invention widely used for lie detection, the polygraph. The polygraph, or the lie detector, is a device that measures physiological changes in a person's body as they answer a series of questions. These changes are believed to be indicative of the person's level of arousal or anxiety, which can be associated with lying. The polygraph typically measures several physiological responses, including heart rate, blood pressure, respiration, and skin conductance (National Research Council, 2003). While the polygraph has been used extensively in law enforcement and other settings as a tool for detecting deception, its scientific validity and reliability have been widely debated. The accuracy of the polygraph has been challenged by research showing that people can learn to manipulate their physiological responses and that the device can produce false positives or false negatives (Saxe, Dougherty & Cross, 1985). Despite these criticisms, the polygraph remains in use in some contexts, such as in pre-employment screenings for government agencies or in investigations of specific crimes. However, its limitations and potential for inaccuracy suggest that it would have be used with caution and in conjunction with other methods of evidence-gathering and analysis.

Since the machines or other objects before proved not accurate enough as they cannot provide context or understanding of the inner processes of the person who is interrogated, the best remaining option for law enforcement is to train investigators and criminal profilers in detecting deception. When trained and experienced enough, these individuals typically rely on a combination of verbal and nonverbal tells, such as changes in facial expressions, body language, and tone of voice, to determine whether or not someone is being truthful.However, it is important to stress that even the ability toaccurately detect lies is not a reliable or effective method for determining guilt or innocence. In scientific literature, it has been reported that the capacity for detecting lies is limited, even among those who claim to be skilled in the

art of lie detection. Research has indicated that individuals are only slightly more accurate than chance when detecting lies, indicating that they are not significantly more skilled at identifying deception than those who make random guesses (Bond & DePaulo, 2006). One of the reasons why could be the unreliability of many of the supposed indicators of deception, such as lack of eye contact or fidgeting. Recent studies suggest that individuals who are skilled at lying may actually be better at suppressing these cues than those who are not (Vrij, 2008). However, trained and experienced professional profilers, albeit still prone to making mistakes, are generally more accurate than any lie-detecting machine, as they create a psychological profile of the interrogated person before the interrogation, so they gather as much information and context about these persons as possible, so they can better understand what is going on, if someone questioned is a skilled liar, if they have other worries that might trigger the cues and tells associated with lying, etc.

Many scientists and researchers dedicated their work on this topic, and one of the most renowned scientists with greatest results in this field is Paul Ekman. Dr. Ekman is a psychologist known for his work on emotions and facial expressions, and he has also contributed significantly to the field of lie detection. Ekman's research on facial expressions and nonverbal behavior has informed his approach to lie detection, which is based on the idea that certain facial expressions and other nonverbal cues can reveal when someone is lying.Ekman and his colleagues developed a method of lie detection based on the Facial Action Coding System (FACS), which is a standardized system for describing facial expressions. According to Ekman's approach, when people try to conceal their emotions or lie, their facial expressions may reveal "microexpressions" or brief, involuntary expressions that contradict their verbal statements (Ekman & Friesen, 1974).Ekman's method involves observing the subject's facial expressions and nonverbal behavior while they are being questioned, and looking for signs of deception such as microexpressions, changes in vocal tone, or other subtle cues. He has also developed training programs to help people improve their ability to detect deception by recognizing these cues.While Ekman's approach to lie detection has been controversial and is not universally accepted, it has had a significant impact on the field and has contributed to our understanding of the relationship between emotions, facial expressions, and deception. Additionally, Ekman has developed training programs to help people improve their ability to detect deception by recognizing these cues.

Profiling begins on a solid scientific basis, but during this process, intuition and imagination begin to prevail (Bjelajac & Filipović, 2022c).

Although there is no foolproof method of detecting if someone is lying, as neither people nor machines can provide unquestionably accurate results, the answer possibly lies in the combination of experienced criminal profilers trained in deception detection, combined with previously completed work on profiles of people who will be questioned. That work may be in the form of a complete psychological profile, but often it is enough to understand the basic backgrounds, tendencies, habits, etc., of people who are to be questioned or interrogated. Even if one uses FACS, their work is much more accurate if high-speed cameras and other technical instruments are used and checked for things that profilers might have missed when interrogating a person face-to-face. It is central to point out that none of these methods alone are applicable in courts of law as evidence, so they generally serve as guidelines and pointers on what to investigate further.But, if the investigation helped by such methods is additionally done thoroughly and accurately, such analysis may be used as a determinant of one's guilt or innocence in courts in the form of expert analysis, accompanied by physical evidence, witness testimonies, etc. Knowledge of such techniques and deception detection training programs can also be used for a variety of other professions other than law enforcement, such as teachers, social workers, psychologists, pedagogues, etc., to make them able to use the obtained skills in the detection of deception in children and young people, not quite versed in lying, and as such to form a mechanism for detection of early signs of criminal behavior and prevent it before it develops.

5. Discussion

We cannot ignore the fact that in May 2023 Serbia was shaken by two cases of mindless violence and mass murders, with dozens dead and injured in two separate cases. The first one was mass school shooting in an elementary school in Belgrade which occurred on May 3rd, 2023. The perpetrator was an underage boy, who killed 10 people (nineschoolchildren and a security guard) and wounded five more pupils and a teacher. The official mourning has not yet begun, and in the evening May 4th, 2023, in Mladenovac, a town less than 50 km south of Belgrade, a 21-year-old male committed another mass shooting, killing eight people and wounding a dozen more. The perpetrator then took two people hostage, a taxi driver and a pregnant woman who was his passenger, and demanded to drive him to a village near the city of Kragujevac in Central Serbia. After an intensive search that included several hundred police and special forces officers, the killer was apprehended

the next day in the early morning and put into custody. These two cases shook Serbian society to its core and launched numerous debates on various topics – from gun control to media promoting violence. The events also caused mass continuing protests of citizens against violence. However, it is quitecomplicated to determine the exact causes of such mindless violence, particularly at the moment when panic and fearmongeringare widespread. Still, there are some undisputed facts we can discuss. Despite having very strict gun laws, Serbia is among the countries with the most firearms per capita in the world. These are residues of the Yugoslav Wars of the 1990s, which still permeate through Serbian society, particularly in the context of unresolved territorial issues and the glorification of war criminals in parts of the Serbian public. Also, there are numerous cases that illustrate failures of justice system in Serbia, where many crimes go unpunished, or the sanctions prescribed by laws for some crimes are merely a slap on the wrist, so the criminals after serving their sentences go back and repeat crimes, such as "Malčanski berberin", a child rapist and molester who abducted an underage girl and molested her after completing his 22-yearsentence, and many other recidivist cases.Both legacy and new media are promoting violence, mostly through reality shows when talking about legacy media, and new media are very important factors for peer influence among children. There are many other factors that will surely be researched further, but here we will provide some context about the most shocking recent crime, the elementary school shooting in Belgrade.

The presented case highlights the significance of profiling minors by the psychological-pedagogical service (PPS), teachers, and parents. The minor displayed clear indicators of atypical behavior, and there were ample opportunities to prevent the negative and tragic outcome through proactive actions, particularly by parents, PPS, and teachers. These actions could have involved conducting assessments, engaging in conversations, and providing support. However, regrettably, the mentioned services and individuals demonstrated irresponsibility, lack of awareness, or disinterest in recognizing early signals of antisocial behavior. Such negligence is highly unacceptable considering the gravity of the situation.

Table 1. The case of mass shooting in elementary school Vladislav Ribnikar in Belgrade, Serbia

Basic information	Profile of the underage perpetrator	Family/School/ Environment
– Underage K.K. (13) from Belgrade, a pupil of 7th grade of Vladislav Ribnikar elementary school, with very good school achievement – On May 3rd, 2023, he entered the premises of the school he attended, and started shooting from a handgun, and killed nine pupils and a security guard, and wounded another four pupils and a teacher.	***Before the crime*** – Depressed, quiet and very withdrawn and solitary. – He had shown asocial behavior (unadjusted behavior, lack of empathy and motive to develop social feelings or to adapt to social relations). – He wasn't well accepted among his peers. – He felt rejected in his surroundings. – He planned a crime and had a list of children he planned to kill as well as the floor plan of the school. ***After the crime*** – After committing the massacre, he called the police and told them he shot at the pupils. – After the arrest, per police reports, he said: "I killed them because I am a psychopath". – Per media reports, he said without any remorse that he is sorry he did not kill all the children from the list. "I am sorry I didn't kill them all. I wanted to come back and kill them, but I dropped the backpack with Molotov cocktails in the schoolyard and I couldn't do it", the boy told social workers after the shooting.	– Absence of recognition and understanding of innate traits and tendencies of the child. – Absence of timely recognition of the problem in behavior and the upbringing of the child by parents and pedagogues and child psychology services. –Lack of interest for thoughts, behavior, actions, perception of environment and parents, peers, teachers…

6. Conclusion

When tackling crime, violence, and its consequences, societies around the world are mostly reactive, and when something terrible happens, the majority of discourse and activities are directed to finding the one responsible party or a singular reason why such crimes happened. However, there are no punitive measures that will instill so much fear in potential perpetrators to force them to abandon their violent plans or reactions. Contrary to that, society shall undertake preventative measures. Understanding the roots of criminal development, recognizing traits that stem from studied factors of the development of criminal behavior, and training of personnel from various professions to recognize and treat the early signs of potential violent or criminal behavior isof paramount importance. Here's where methods and techniques used by criminal profilers come to play – if learned and adopted in the everyday work of teachers, pedagogues, psychologists, school managers, and security officers, it may help in recognition and reaction to these early signs, which, in turn, may prevent such crimes from occurring. Nothing is guaranteed, but every life is precious, and if such an undertaking helps to stop one potential murderer from committing the crime, it would pay off instantly.

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KRIMINALISTIČKI PROFAJLERI – ŽIVI DETEKTORI LAŽI

REZIME: Ljudi su od davnina bili skloni da analiziraju i procenjuju druge ljude, ali i životinje, predmete i slično, čak i u svakodnevnim situacijama, tako da je pomalo neobično da je kriminalističko profilisanje postalo deo redovnih istražnih procedura u organima za sprovođenje zakona tek

osamdesetih godina dvadesetog veka. Uloga kriminalističkih profajlera primarno se ostvaruje kroz rad na rešavanju učinjenih kompleksnih krivičnih dela gde je učinilac nepoznat, ali takođe svojim delovanjem vrše kako supresivni, tako u manjoj meri i preventivni efekat, koji postaje amplifikovan uključivanjem elemenata faktora rizika za razvoj kriminalnog ponašanja, kao i kriminalističku fenomenologiju. Tehnike koje se koriste u kriminalističkom profilisanju pomažu u ranom prepoznavanju simptoma koji ukazuju i na biološke, socijalne, i faktore okruženja, uključujući faktore učenja i situacione faktore. Krećući se između faktora geneze kriminalnog ponašanja, supresije i prevencije kriminaliteta kao posledice rada kriminalističkih profajlera, dolazimo do uloge profajlera u detektovanju laži, i neophodnosti ljudskog prisustva i intervencije u raznim formama formalnih razgovora, bilo da se radi o sprovođenju zakona, socijalnom radu ili edukaciji. Cilj ovog rada je sistematski rasvetliti faktore koji doprinose razvoju kriminalnog ponašanja, istražiti fenomenologiju kriminala i istaći ulogu kriminalističkih profajlera u prevenciji i supresiji kriminaliteta, kao i analizirati njihovu ulogu u procesu detekcije laži, uz davanje preporuka za inkorporaciju profajlerskih tehnika u korpus znanja i veština nastavnika, pedagoga, psihologa, socijalnih radnika i drugo. Metode koje su korišćene u ovom studiju obuhvataju kvantitativnu i kvalitativnu analizu, korišćenje primarnih i sekundarnih izvora, kao i komparativnu analizu.

Ključne reči: *kriminalističko profilisanje, razvoj kriminalnog ponašanja, faktori rizika, detekcija laži, prevencija kriminaliteta.*

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